19. (Amended) An exposure apparatus comprising:

an illumination optical system having a plurality of reflective components that guide a radiation beam to a mask;

a projection system that projects a pattern of the mask onto a photosensitive substrate;

a drive that relatively moves the photosensitive substrate and the mask with respect to the projection system along a specified scanning exposure direction;

a first telecentricity adjustment mechanism that applies an oblique component to telecentricity in one of: (a) an exposure field of the projection system, and (b) an illumination field formed on the mask; and

a second telecentricity adjustment mechanism that adjusts telecentricity changing in accordance with a position from an optical axis in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask;

wherein the first and second telecentricity adjustment mechanisms respectively adjust at least some of the plurality of reflective components of the illumination optical system.

22. (Amended) The exposure apparatus of claim 19, wherein the illumination optical system comprises:

a radiation source that outputs the radiation beam;

a reflective integrator that makes uniform an illumination distribution of radiation from the radiation beam on the photosensitive substrate or the mask; and

a radiation guiding optical system arranged between the radiation source and the reflective integrator that guides the radiation beam from the radiation source to the reflective integrator.

33. (Amended) The method of claim 32, wherein the oblique component to telecentricity is applied by adjusting an illumination optical component that is different from the different illumination optical components, and the telecentricity changing in accordance with a position from the optical axis is adjusted by adjusting an illumination optical component that is different from the illumination optical component adjusted to apply the oblique component to telecentricity.

34. (Amended) The method of claim 32, wherein the oblique component to telecentricity is applied by adjusting an illumination optical component that is different from the different illumination optical components, and the telecentricity changing in accordance with a position from the optical axis is adjusted by adjusting an illumination optical component that is the same as the illumination optical component adjusted to apply the oblique component to telecentricity.

Please add new claims 47-90 as follows:

--47. (New) An exposure apparatus comprising:

a projection system having an exposure field that is decentered with respect to an optical axis in order to project a reduction image of a pattern formed on a mask onto a photosensitive substrate;

an illumination optical system that forms an illumination field on the mask, the illumination field being decentered with respect to the optical axis of the projection system;

a drive that relatively moves the mask and the photosensitive substrate along a scanning exposure direction with respect to the projection system; and

an illumination adjustment mechanism that adjusts an illumination characteristic along the scanning exposure direction in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask, and/or an illumination

characteristic crossing the scanning exposure direction in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask.--

--48. (New) The exposure apparatus of claim 47, wherein the illumination optical system includes a plurality of illumination optical components, and the illumination adjustment mechanisms move and/or incline at least one illumination optical component among the plurality of illumination optical components. --

--49. (New) The exposure apparatus of claim 48, wherein the illumination adjustment mechanism applies at least one of an illumination distribution component that is inclined along the scanning exposure direction, and an illumination distribution component that is inclined along the direction crossing the scanning exposure direction. --

--50. (New) The exposure apparatus of claim 47, further comprising:

a first telecentricity adjustment mechanism that applies an oblique component to telecentricity in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask; and

a second telecentricity adjustment mechanism that adjusts telecentricity changing in accordance with a position from the optical axis in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--51. (New) The exposure apparatus of claim 47, wherein the illumination adjustment mechanism applies at least one of an illumination distribution component that is inclined along the scanning exposure direction, and an illumination distribution component that is inclined along the direction crossing the scanning exposure direction. --

--52. (New) An exposure apparatus comprising:

a projection system having an exposure field that is decentered with respect to an optical axis in order to project a reduction image of a pattern formed on a mask onto a photosensitive substrate;

an illumination optical system that forms an illumination field on the mask, the illumination field being decentered with respect to the optical axis of the projection system;

a drive that relatively moves the mask and the photosensitive substrate along a scanning exposure direction with respect to the projection system; and

a telecentricity adjustment mechanism that applies an oblique component to telecentricity in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--53. (New) The exposure apparatus of claim 52, further comprising:

another telecentricity adjustment mechanism that adjusts telecentricity changing in accordance with a position from the optical axis in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--54. (New) The exposure apparatus of claim 53, wherein the illumination optical system includes a plurality of illumination optical components, and the telecentricity adjustment mechanism and the another telecentricity adjustment mechanism adjust a position of at least one of the illumination optical component of the illumination optical system. --

--55. (New) An exposure apparatus comprising:

a projection system having an exposure field that is decentered with respect to an optical axis in order to project a reduction image of a pattern formed on a mask onto a photosensitive substrate;

an illumination optical system that forms an illumination field on the mask, the illumination field being decentered with respect to the optical axis of the projection system;

a drive that relatively moves the mask and the photosensitive substrate along a scanning exposure direction with respect to the projection system; and

a telecentricity adjustment mechanism that adjusts telecentricity in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--56. (New) The exposure apparatus of claim 55, wherein the illumination optical system includes a plurality of illumination optical components, and the telecentricity adjustment mechanism adjusts the telecentricity by using at least one illumination optical component among the plurality of illumination optical components. --

--57. (New) The exposure apparatus of claim 55, wherein the illumination optical system has an optical axis that is coaxial with the optical axis of the projection system. --

--58. (New) The exposure apparatus of claim 57, wherein the illumination optical system includes an optical integrator,

the optical integrator includes a plurality of optical surfaces with a shape similar to a shape of the exposure field of the projection system. --

--59. (New) The exposure apparatus of claim 58, wherein the plurality of optical surfaces of the optical integrator are arranged in an array. --

--60. (New) The exposure apparatus of claim 59, wherein the illumination optical system forms an arcuate illumination field on the mask. --

--61. (New) The exposure apparatus of claim 55, further comprising a telecentricity measurement system. --

--62. (New) An exposure apparatus comprising:

a projection system having an exposure field that is decentered with respect to an optical axis in order to project a reduction image of a pattern formed on a mask onto a photosensitive substrate;

an illumination optical system that forms an illumination field on the mask, the illumination field being decentered with respect to the optical axis of the projection system; and

a drive that relatively moves the mask and the photosensitive substrate along a scanning exposure direction with respect to the projection system,

wherein the illumination optical system has an optical axis that is coaxial with the optical axis of the projection system. --

--63. (New) The exposure apparatus of claim 62, further comprising a telecentricity adjustment mechanism that adjusts telecentricity changing in accordance with a position from the optical axis in one of: (a) the exposure field of the projection system and (b) the illumination field on the mask. --

--64. (New) The exposure apparatus of claim 63, further comprising another telecentricity adjustment mechanism that applies an oblique component to telecentricity in one of: (a) the exposure field of the projection system and (b) the illumination field on the mask. --

--65. (New) The exposure apparatus of claim 62, wherein the illumination optical system includes an optical integrator,

the optical integrator includes a plurality of optical surfaces with a shape similar to a shape of the exposure field of the projection system. --

--66. (New) The exposure apparatus of claim 65, wherein the plurality of optical surfaces of the optical integrator arc arranged in an array. --

--67. (New) The exposure apparatus of claim 65, wherein the illumination optical system forms an arcuate illumination field on the mask. --

--68. (New) The exposure apparatus of claim 62, further comprising:

a telecentricity adjustment mechanism that adjusts telecentricity in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask,

wherein the illumination optical system includes a plurality of illumination optical components, and the telecentricity adjustment mechanism adjusts the telecentricity by using at least one illumination optical component among the plurality of illumination optical components. --

--69. (New) A method of exposing a pattern of a mask onto a photosensitive substrate, the method comprising the steps of:

forming an illumination field on the mask, the illumination field being decentered with respect to an optical axis of a projection system;

projecting a reduced image of the pattern of the mask onto the photosensitive substrate with the projection system, the projection system having an exposure field that is decentered with respect to the optical axis;

relatively moving the mask and the photosensitive substrate along a scanning exposure direction with respect to the projection system; and

adjusting an illumination characteristic along the scanning exposure direction in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask, and/or an illumination characteristic crossing the scanning exposure direction in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--70. (New) The method of claim 69, wherein the illumination optical system includes a plurality of illumination optical components, and the illumination characteristics along the scanning exposure direction and the direction crossing the scanning exposure

direction are adjusted by moving and/or inclining at least one illumination optical component in the illumination optical system. --

--71. (New) The method of claim 70, wherein the step of adjusting an illumination characteristic applies at least one of an illumination distribution component that is inclined along the scanning exposure direction, and an illumination distribution component that is inclined along the direction crossing the scanning exposure direction. --

--72. (New) The method of claim 69, further comprising the steps of:

applying an oblique component to telecentricity in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask; and

adjusting telecentricity changing in accordance with a position from the optical axis in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--73. (New) The method of claim 69, wherein the step of adjusting an illumination characteristic applies at least one of an illumination distribution component that is inclined along the scanning exposure direction, and an illumination distribution component that is inclined along the direction crossing the scanning exposure direction. --

--74. (New) A method of exposing a pattern of a mask onto a photosensitive substrate, the method comprising the steps of:

forming an illumination field on the mask, the illumination field being decentered with respect to an optical axis of a projection system;

projecting the pattern of the mask onto the photosensitive substrate with the projection system, the projection system having an exposure field that is decentered with respect to the optical axis;

relatively moving the mask and the photosensitive substrate along a scanning exposure direction with respect to the projection system; and

applying an oblique component to telecentricity in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--75. (New) The method of claim 74, further comprising the steps of:

adjusting telecentricity changing in accordance with a position from the optical axis in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--76. (New) The method of claim 75, wherein the illumination optical system includes a plurality of illumination optical components, and

the applying step and the adjusting step adjust a position of at least one of the illumination optical components of the illumination optical system. --

--77. (New) A method of exposing a pattern of a mask onto a photosensitive substrate, the method comprising the steps of:

forming an illumination field on the mask, the illumination field being decentered with respect to an optical axis of a projection system;

projecting the pattern of the mask onto the photosensitive substrate with the projection system, the projection system having an exposure field that is decentered with respect to the optical axis;

relatively moving the mask and the photosensitive substrate along a scanning exposure direction with respect to the projection system; and

adjusting telecentricity in one of (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--78. (New) The method of claim 77, wherein the illumination optical system includes a plurality of illumination optical components, and

the adjusting step adjusts a position of at least one of the illumination optical components of the illumination optical system. --

--79. (New) The method of claim 78, wherein the illumination optical system has an optical axis that is coaxial with the optical axis of the projection system. --

--80. (New) The method of claim 79, wherein the forming step includes a step of using an optical integrator,

the optical integrator includes a plurality of optical surfaces with a shape similar to a shape of the exposure field of the projection system. --

--81. (New) The method of claim 80, wherein the plurality of optical surfaces of the optical integrator are arranged in an array. --

--82. (New) The method of claim 81, wherein the forming step forms an arcuate illumination field on the mask. --

--83. (New) The method of claim 77, further comprising the step of measuring telecentricity in one of (a) the exposure field of the projection system, and (b) the illumination field on the mask. --

--84. (New) A method of exposing a pattern of a mask onto a photosensitive substrate, the method comprising the steps of:

forming an illumination field on the mask, the illumination field being decentered with respect to an optical axis of a projection system;

projecting the pattern of the mask onto the photosensitive substrate with the projection system, the projection system having an exposure field that is decentered with respect to the optical axis; and

relatively moving the mask and the photosensitive substrate along a scanning exposure direction with respect to the projection system,

wherein the illumination optical system has an optical axis that is coaxial with the optical axis of the projection system. --

--85. (New) The method of claim 84, further comprising the steps of:

adjusting telecentricity changing in accordance with a position from the optical axis in one of: (a) the exposure field of the projection system, and (b) the illumination field formed on the mask. --

--86. (New) The method of claim 85, further comprising the steps of:

applying an oblique component to telecentricity in one of: (a) the exposure field of the projection system and (b) the illumination field on the mask. --

--87. (New) The method of claim 84, wherein the forming step includes a step of using an optical integrator,

the optical integrator includes a plurality of optical surfaces with a shape similar to a shape of the exposure field of the projection system. --

--88. (New) The method of claim 87, wherein the plurality of optical surfaces of the optical integrator are arranged in an array. --

--89. (New) The method of claim 87, wherein the forming step forms an arcuate illumination field on the mask. --

--90. (New) The method of claim 84, further comprising the steps of:

adjusting telecentricity in one of (a) the exposure field of the projection system, and (b) the illumination field formed on the mask,

wherein the illumination optical system includes a plurality of illumination optical components, and

the adjusting step adjusts a position of at least one of the illumination optical components of the illumination optical system. --